



ORDER NUMBER

C-6-24

IN THE MATTER OF

the *Utilities Commission Act*, RSBC 1996, Chapter 473

and

Kyuquot Power Limited
Certificate of Public Convenience and Necessity
for the Capacity Upgrade Project

BEFORE:

M. Jaccard, Panel Chair
E. A. Brown, Commissioner

on December 20, 2024

CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY

WHEREAS:

- A. By Order G-207-24, dated August 2, 2024, the British Columbia Utilities Commission (BCUC) accepted Kyuquot Power Limited's (KPL) Resource Assessment Report, as adjusted to include load from the Chamiss Bay camp, as being in the public interest;
- B. On November 7, 2024, KPL filed an application (Application) with the BCUC for a Certificate of Public Convenience and Necessity (CPCN) pursuant to sections 45 and 46 of the *Utilities Commission Act* for the Capacity Upgrade Project (Project);
- C. The Project includes a two-phased approach to increasing the system demand capacity from 550 kilowatts (kW) to approximately 1123 kW. Phase One includes a service upgrade by British Columbia Hydro Power and Authority (BC Hydro) at the point of interconnection between the KPL and BC Hydro systems, including the installation of a new single phase recloser, and an upgrade to the KPL system including the installation of a new recloser. Phase Two includes the installation of a voltage regulator on the KPL system;
- D. By Order G-309-24 dated November 22, 2024, the BCUC established a regulatory timetable for the review of the Application, which included public notice, one round of BCUC information requests to KPL, letters of comment, KPL response to letters of comment and a decision deadline; and
- E. The BCUC has considered the Application, the evidence and submissions in the proceeding and finds that the following determinations are warranted.

NOW THEREFORE pursuant to sections 45 and 46 of the *Utilities Commission Act* and for the reasons outlined in the decision accompanying this order, the BCUC orders as follows:

1. A CPCN is granted to KPL for the Project.
2. KPL is directed to file Project reporting as directed in Section 8 of the decision accompanying this order.

DATED at the City of Vancouver, in the Province of British Columbia, this 20th day of December 2024.

BY ORDER

Electronically signed by Mark Jaccard

M. Jaccard
Commissioner

Kyuquot Power Limited
Certificate of Public Convenience and Necessity
for the Capacity Upgrade Project

DECISION

1.0 Introduction

1.1 Background

On February 13, 2020, a complaint was filed with the British Columbia Utilities Commission (BCUC) by the Ka:yu:'k't'h' / Che:k'tles7et'h' First Nations (KCFN) concerning, among other things, a safety matter regarding the reliability, service, and maintenance of the Kyuquot Power Limited (KPL) system. On May 15, 2020,¹ the BCUC established the KPL Safety and Reliability hearing to further investigate the safety and reliability of KPL's system. On October 27, 2022,² the BCUC directed KPL to file, within one year, a long-term resource plan with a 10-year forecast and plan setting out how it will meet the forecast load that supports KCFN's community aspirations.

On August 2, 2024,³ the BCUC accepted KPL's Resource Assessment Report as adjusted to include load from the Chamiss Bay camp. In the Resource Assessment Report, KPL outlined the forecast loads for both KCFN and non-KCFN customers from 2023 to 2034 and noted that it may reach the existing limit of demand capacity available from BC Hydro at the point of interconnection over the planning horizon. KPL's maximum demand permitted, as set by its Electricity Supply Agreement with British Columbia Hydro Power and Authority (BC Hydro), is 500 kilowatts (kW); however, KPL's system maximum capacity is constrained at approximately 550 kW due to existing system equipment limits.⁴ KPL identified the potential increase of supply capability at the point of interconnection as a feasible alternative to resolve the demand capacity issue.⁵ In its decision, the BCUC noted the evidence indicated that peak demand was likely to rise beyond KPL's existing capacity, necessitating further action to ensure reliable service. Further, the BCUC noted that KPL and KCFN agree that a capacity upgrade is the simplest and most effective solution. The BCUC indicated it supports KPL's approach to the capacity upgrade, considering it the preferable approach to meet the peak demand forecast and address the capacity limit at the BC Hydro point of interconnection.⁶

On November 7, 2024, KPL filed an application (Application) with the BCUC for a Certificate of Public Convenience and Necessity (CPCN) for the Capacity Upgrade Project (Project). The Project includes a two-phased approach to upgrading the demand capacity of the KPL system from 550 kW to approximately 1123 kW through upgrades to both the BC Hydro and KPL sides of the point of interconnection.⁷ Phase One includes the installation of a recloser on both sides of the interconnection to achieve a KPL system capacity of 700 kW,⁸ while Phase Two includes the installation of a voltage regulator on the KPL system to achieve a KPL system capacity of approximately 1123 kW.⁹

¹ By Order G-115-20.

² By Order G-302-22.

³ By Order G-207-24.

⁴ KPL Resource Assessment Report proceeding, Exhibit B-1, p. 22.

⁵ Ibid.

⁶ Order G-207-24.

⁷ Exhibit B-1, p. 7.

⁸ Ibid.

⁹ Ibid., p. 11.

The estimated cost for Phase One of the Project, including contingency, is \$370,000.¹⁰ The estimated cost for Phase Two of the Project, not including contingency, is \$130,000.¹¹ For Phase One, KPL anticipates about 12 months is required from Project initiation to commissioning, with initiation occurring promptly after issuance of a CPCN.¹²

1.2 Regulatory Process

By Order G-309-24, dated November 22, 2024, the BCUC established a regulatory timetable for review of the Application, which included public notice, one round of BCUC information requests, letters of comment, KPL's response to any letters of comment and a BCUC decision date. The BCUC received letters of comment from the largest KPL customer accounts, the KCFN and School District 84, discussed further below.

1.3 Legislative and Regulatory Framework

Section 45(1) of the *Utilities Commission Act* (UCA) states that except as otherwise provided, a person must not begin the construction or operation of a public utility plant or system, or an extension of either, without first obtaining from the BCUC a certificate that public convenience and necessity require, or will require, the construction or operation of the plant or system (i.e., a CPCN).

The BCUC's CPCN Guidelines provide general guidance regarding the BCUC's expectation of the information that should be included in a CPCN application while providing the flexibility for an application to reflect the specific circumstances of the applicant, the size and nature of the project and any issues raised.¹³ The BCUC's CPCN Guidelines state that a CPCN application submitted under sections 45 and 46 of the UCA should contain information regarding the applicant, project need, alternatives and justification, consultation, project description, project cost estimate, provincial government energy objectives and policy considerations, and new service areas.¹⁴

2.0 Project Need and Justification

KPL states that the Project is necessary to meet the estimated electric load growth based on historical electricity use and the KCFN community aspirations.¹⁵ KPL explains that the forecast of annual peak demand, provided as part of the Resource Assessment Report, projects an increase from 397 kW in 2023 to 596 kW by 2034. KPL forecasts its demand will grow by approximately four percent annually and expects future demand to be between 509 kW and 684 kW by 2034.¹⁶

In addition to the forecast load growth, KPL is anticipating, potentially in early 2025, the connection of the Chamiss Bay logging camp to the KPL system. KPL states that the Chamiss Bay account would represent the largest potential near-term increase in annual electricity sales and peak demand load, with early estimates for demand of 50 kW. KPL also notes that School District 84, currently representing nine percent of total electricity

¹⁰ Ibid., p. 13.

¹¹ Ibid., p. 12.

¹² Exhibit B-1, p. 13.

¹³ Appendix A to Order G-20-15, BCUC 2015 Certificate of Public Convenience and Necessity Application Guidelines (CPCN Guidelines), p.1.

¹⁴ CPCN Guidelines, pp. 4-9.

¹⁵ Exhibit B-1, p. 8.

¹⁶ Ibid.

sales, has indicated to KPL that its electricity purchases and peak demand load are expected to increase over the next two years due to additions and upgrades at the school.¹⁷

As stated above, the KPL system is currently limited to a maximum demand of 550 kW at the BC Hydro point of interconnection.

3.0 Description and Evaluation of Project Alternatives

KPL identified three alternatives to address the demand capacity limitations of forecast load projections.¹⁸

- Option A. Increasing the supply capability from BC Hydro;
- Option B. Decreasing the future winter peak demand by limiting use of specific customer facilities; or
- Option C. Decreasing the future winter peak demand by utilizing self-generation by customers during winter peak demand periods.

KPL states that the extent of the capability of KCFN or School District 84 to limit certain facilities or to utilize self-generation at unplanned times is unknown, and that Options B and C would require both customers to expend considerable effort and costs. Further, KPL notes that as KCFN operates as an electrical supplier to local households, businesses, and community services, the inconvenience and cost associated with Options B and C would be highly variable over both a short- and long-term planning horizons.¹⁹

KPL states the only feasible option to address the demand increase is Option A, increasing the supply capability from BC Hydro.

4.0 Project Description

The Project consists of upgrades to both the BC Hydro and KPL systems on either side of the point of interconnection to increase the KPL system capacity from 550 kW to 1123 kW. KPL explains that the BC Hydro scope of work in Phase One will increase the capacity available from BC Hydro to 1123 kW, while the KPL system capacity will be increased from 550 kW to 700 kW upon the completion of Phase One and increased further to 1123 kW upon completion of Phase Two. The scope of each phase is described below including timing issues and implications.

The scope of Phase One of the Project is divided into work performed by BC Hydro and work performed by KPL. The BC Hydro scope of work consists of installation of a single phase recloser and associated transformer power supply on a new pole and removal of the existing fuse protection.²⁰ KPL's scope of work is to replace the fuse near the point of interconnection with a single phase recloser with a trip capacity of 700 kW and related electrical works. Phase One of the Project is anticipated to require about 12 months from initiation to commissioning, and that initiation can occur promptly after a CPCN is issued. KPL notes that should CPCN approval be later than March 30, 2025, commissioning could be deferred beyond the 2025/2026 winter peak demand period.²¹

Phase Two of the Project consists of installation of a voltage regulator at a location yet to be determined, and resetting the previously-installed KPL recloser to a limit of 1123 kW. No work on the BC Hydro system is planned

¹⁷ Ibid., p. 10.

¹⁸ Exhibit B-1, p. 9.

¹⁹ Ibid.

²⁰ Exhibit B-1, Appendix 1, p. 2.

²¹ Ibid., p. 13.

for Phase Two. With respect to the timing of Phase Two, statements from KPL suggest that initiation is forecast to occur after 2026, once the KPL system demand approaches 600 kW. KPL explains it selected 600 kW as the capacity that would trigger Phase Two initiation to provide certainty of the availability of power to KPL's customers for their future growth plans.²²

BC Hydro provided KPL an invoice, valid until December 23, 2024, for the BC Hydro system scope of work. KPL has tried to extend this deadline, without success.²³ To avoid both the cost and schedule implications of re-applying for a new BC Hydro design estimate and new invoice as well as the associated further regulatory steps, KPL requests an expedited CPCN review process that meets BC Hydro's deadline.²⁴

Positions of Parties

By letter of comment, D. Johnson of School District 84 submits that an increase in service capacity is needed for the school in Kyuquot and that KPL has been reluctant to provide this due to limitations on its system.²⁵

By letter of comment, KCFN submits that it agrees that KPL's existing system capacity is not sufficient to serve longer-term load growth and that the Project would be the simplest and most convenient alternative to increase peak demand capacity.²⁶ However, KCFN is concerned that the Project does not address high neutral voltages on the single-phase line, or limited fault current availability. KCFN submits that these concerns have previously been raised by BC Hydro and KCFN's Electrical Engineer of Record, TEBurns Engineering, and that significant new loads on the system will heighten the concerns further.²⁷ Additionally, KCFN submits that professional engineering studies such as a single line diagram, an updated short-circuit study and updated fuse coordination scheme must be completed before issuance of a CPCN to KPL.²⁸

In its reply, KPL submits that both letters of comment support the need for the Project. KPL submits that KCFN's concerns surrounding limited fault current availability, high neutral voltage and the existence or non-existence of up-to-date professional engineering studies are flawed and should be dismissed. KPL explains that Primary Engineering and Construction Corporation, the responsible electrical engineering firm for the Project, has stated that a system study was conducted on the KPL system as part of its engineering services for the Project. Further, KPL notes that the updating of single line diagrams, fuse coordination schemes and such will depend on future load additions, not existing loads on the system.²⁹

Panel Discussion

The Panel acknowledges KCFN's concerns related to the Project's approach to safety risks and engineering studies. The Panel observes that the Project has been developed and will be overseen by qualified professional engineers from both Primary Engineering and Construction Corporation and BC Hydro, and notes the documentation developed by engineers from Primary Engineering and Construction Corporation and submitted by KPL in the proceeding. The Panel expects that during Project implementation and beyond KPL will continue to fulfill its obligations as a public utility including:

- monitoring its system to ensure safe and reliable operations, and

²² Exhibit B-3, BCUC IR 1.1.

²³ Exhibit B-1, p. 12.

²⁴ Ibid., p. 13.

²⁵ Exhibit D-1, p. 1.

²⁶ Ibid., p. 2.

²⁷ Ibid., pp. 2-3.

²⁸ Ibid., p. 3.

²⁹ Exhibit B-4, pp. 1-2.

- updating engineering documents on an appropriate timeline as infrastructure is planned and built in response to future load materializing.

On December 19, 2024, KCFN submitted a letter of comment in reply to KPL's submission in response to KCFN's earlier letter of comment.³⁰ While the Panel does not find that KCFN's comments affect the decision to grant a CPCN for the Project, the Panel considers the information in the letter pertaining to loads on the KPL system may be informative to KPL. The Panel strongly encourages KCFN and KPL to work together to share information that may be relevant to the operation of the electric utility.

5.0 Project Cost Estimate

The Project cost estimate for Phase One, including contingency, is \$370,000, and for Phase Two, not including contingency, is \$130,000. Table 1 below provides a component breakdown of the cost estimate for both phases.³¹

Table 1: Phase One and Phase Two Cost Breakdown

Component	Cost Estimate	Description
BC Hydro Upgrades	\$175,000	Based on a budget quotation from BC Hydro of \$136,237 plus added inflation/changes, carrying costs, engineering administration and certifications by Primary Engineering and Construction Corporation ³² and other applicable costs.
Phase One KPL Recloser	\$70,000	Based on a construction cost estimate informed by supplier quotations and budget estimates by qualified contractors.
Engineering and Project Management	\$20,000	Based on project management costs and the potential need for site visits and inspections.
Regulatory Approval of a CPCN from the BCUC	\$40,000	Based on KPL's prior experience with revenue requirements applications that were generally estimated at \$10,000 each. KPL notes that the cost estimate includes additional legal counsel costs.
Phase One Contingency	\$65,000	KPL notes that the installation costs for electrical equipment in isolated locations within BC are highly variable and that contractor availability may be a factor. Additionally, the BC Hydro estimate is anticipated as being within +30%/-20% therefore KPL has determined that a contingency amount of 22% is realistic.
Phase Two KPL Voltage Regulator	\$130,000	Based on a construction cost estimate informed by supplier quotations and budget estimates by qualified contractors.

KPL states that the principal change to existing customers, other than the increased available demand capacity, is an increase in the cost of electrical service. KPL estimates that the increase in its cost of service in the first year after commissioning of Phase One of the Project will be \$44,000, resulting in an increase of about \$0.022 per kilowatt hour (kWh) based on forecast sales of 1,800,000 kWh for 2026. KPL states that the negative financial impact on customers will be reduced and/or eliminated should new customers emerge who would not have connected without additional capacity on the KPL system being available.³³

³⁰ Exhibit D-2-1.

³¹ Exhibit B-1, pp. 11-13.

³² Primary Engineering and Construction Corporation is the engineering consultant firm engaged by KPL for the Project.

³³ Exhibit B-1, pp. 14-15.

6.0 Project Consultation and Engagement

KPL limited its consultation efforts for the Project to its two largest customers, KCFN and School District 84, whose accounts represent about 73 percent and 9 percent respectively of total annual electrical sales.³⁴ Additionally, KCFN have acquired the tenures for the Chamiss Bay logging camp, which KPL states would represent the largest potential near-term increase in annual electricity sales and peak demand load.

KPL states that KCFN participated fully in the Resource Assessment proceeding and indicated support for the Project. KPL states that it also continues to have email and telephone conversations regarding the anticipated connection of Chamiss Bay camp to the KPL system.³⁵

D. Johnson of School District 84 provided a brief statement reflecting the local school's future service capacity needs.³⁶

7.0 CPCN Determination

The Panel accepts KPL's Project justification as it effectively addresses how to best meet the load that supports KCFN's community aspirations.

The Panel is convinced that the Project is the preferable option and provides a superior alternative compared to other options, which the Panel notes is consistent with the findings of the BCUC in Order G-207-24 in the KPL Resource Assessment Report proceeding.

The Panel agrees with KPL's approach to implementing the Project in two phases because it enables flexibility for KPL in deciding when the second phase is required to meet system load. The Panel acknowledges the uncertainty in timing of future demand and encourages KPL to exercise prudence in planning and implementing Phase Two to avoid burdening ratepayers with capital expenditures that may be premature. Further, the Panel notes that by approving both Project phases now, it is striking a balance between avoiding undue regulatory costs, tailoring the approach to reflect the small size of KPL and pursuing regulatory efficiency, and providing certainty for KCFN around the future capacity of its electrical supply in support of its community aspirations.

The Panel acknowledges the cost estimates provided by KPL of \$370,000 for Phase One and \$130,000 for Phase Two and notes the forecast rate impact estimate for 2026 as year one of operation of Phase One of about \$0.022 per kWh. The Panel also notes that the firm quote provided by BC Hydro provides a high degree of certainty for the Phase One, BC Hydro portion of the Project.

In view of the past engagement efforts by KPL for the Resource Assessment Report proceeding, and considering the size of KPL, the Panel views KPL's engagement with its customers to be adequate for the purposes of the Project.

For these reasons, **the Panel grants a CPCN to KPL for Phase One and Phase Two of the Project.**

³⁴ Ibid., p. 9.

³⁵ Ibid., p. 10.

³⁶ Exhibit D-1.

8.0 Project Reporting

The Panel directs KPL to provide the following reports:

1. Annual Progress Reports
 - a. A progress report is to be filed within 30 days of the end of each annual reporting period, with the first report covering the period ending December 31, 2025. Each report is required to detail:
 - i. Cost update
 - ii. Schedule update
2. Material Change Report
 - a. A material change is a change in KPL's plan for the Project that would reasonably be expected to have a significant impact on the schedule, cost or scope, such that:
 - i. The schedule and/or the in-service date for either Phase One or Phase Two is delayed by 6 months or longer;
 - ii. The cost for either Phase One or Phase Two exceeds 30 percent of the estimate provided in the Application; or
 - iii. There is a change to the Project scope provided in the Application.
 - b. In the event of a material change, KPL must file a material change report with the BCUC explaining the reasons for the material change and actions KPL is taking to address the material change. KPL must file the material change report as soon as practicable and in any event within 30 days of the date on which the material change occurs.
3. Final Report
 - a. A Final Report is to be filed within three months of substantial completion of each of Phase One and Phase Two of the Project. The Final Report is to include:
 - i. A complete breakdown of the final costs of the Project Phase; and
 - ii. An explanation of all material cost variances for any of the cost items provided in the Application that exceed 10 percent.

DATED at the City of Vancouver, in the Province of British Columbia, this 20th December 2024.

Electronically signed by Mark Jaccard

M. Jaccard
Panel Chair/Commissioner

Electronically signed by Elizabeth (Lisa) Brown

E. A. Brown
Commissioner